

Claims

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1. An adhesive comprising at least one organic polymer or a mixture of two or more organic polymers and paramagnetic or ferromagnetic nanoparticles having a particle size of from 1 to 1000 nm, or a mixture thereof.
2. The adhesive as claimed in claim 1, characterized in that it contains the nanoparticles in an amount of from 0.1 to 40% by weight.
3. The adhesive as claimed in one of claims 1 or 2, characterized in that the nanoparticles comprise at least one compound selected from the group consisting of Fe, Co, Ni, Cr, Mo, W, V, Nb, Ta, Ce, Pr, Nd, Pm, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb, Lu, alloys of two or more of said elements, oxides of said elements or ferrites of said elements (besides iron), or a mixture of two or more thereof.
4. The adhesive as claimed in one of claims 1 to 3, characterized in that the nanoparticles comprise magnetite, macchiemite, goethite or a ferrite of the general formula MeOFe_2O_3 , Me representing an element selected from the group consisting of Mn, Co, Ni, Cu, Zn, Mg or Cd, or a mixture of two or more thereof.
5. The adhesive as claimed in one of claims 1 to 4, characterized in that it is a pressure sensitive adhesive or a contact adhesive.
6. The adhesive as claimed in one of claims 1 to 5, characterized in that it is a hot melt adhesive or a dispersion adhesive.

7. An adhesive, characterized in that there is present as synthetic organic polymer a polymer selected from the group consisting of polyacrylates, polymethacrylates, polyoxy-alkylenes, polyurethanes, polyesters, polystyrene, polyethylene, polyvinyl esters, ethylene-vinyl acetate copolymers; or a mixture of two or more thereof.
8. The adhesive as claimed in one of claims 1 to 7, characterized in that it comprises as synthetic organic polymer an ethylene-vinyl acetate copolymer or a mixture of two or more such copolymers.
9. The adhesive as claimed in one of claims 1 to 8, characterized in that the nanoparticles are bonded ionically, coordinatively or covalently to the organic polymer.
10. A process for preparing an adhesive, characterized in that a synthetic organic polymer, paramagnetic or ferromagnetic nanoparticles, or a mixture thereof and, where appropriate, solvents or further additives, or a mixture of two or more thereof, are mixed.
11. The use of paramagnetic or ferromagnetic nanoparticles or of a mixture of one or more paramagnetic and one or more ferromagnetic nanoparticles having a particle size of from 10 to 300 nm in adhesives.

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